



Saturday, May 30, 2026
Celebrating a century of discovery in insect science

Overview of Events:

School of Business Auditorium

8:30 Coffee and reconnect with old friends

8:50-10:20 Symposium Session 1

10:20-10:40 Coffee Break

10:40-12:00 Symposium Session 2

12:00-1:30 Lunch

1:30-3:00 Symposium Session 3

Entomology Building and Courtyard

3:00-6:00 Entomology Open House, including poster viewing, insect photo exhibit, tours of I&Q and Entomology Museum, and a Silent Auction

6:00 Dinner, UCR Botanic Garden



UNIVERSITY OF CALIFORNIA
COLLEGE OF AGRICULTURE

DEDICATION
OF
CITRUS EXPERIMENT STATION
AND GRADUATE SCHOOL OF
TROPICAL AGRICULTURE



FRONT ENTRANCE, CITRUS EXPERIMENT STATION

WEDNESDAY, MARCH 27, 1918
RIVERSIDE, CALIFORNIA



8:50-10:20 Symposium Session 1

8:50 Opening remarks, Christiane Weirauch, chair of Entomology

9:00 Jeffrey Scott

Studies of Insecticide Resistance: Continuing the legacy of Professor George Georghiou

Abstract

Insecticide resistance remains an important area of investigations for numerous reasons: Countermeasures are needed for sustainable pest control, it is a tractable evolutionary process with a known selective pressure, and it can be a useful tool to identify insecticide mode of action. Professor George Georghiou (UCR) was one of the pioneers of insecticide resistance studies and he laid the foundation for concepts about insecticide resistance management that are still the fundamentals used today. Tracking the phenotype of resistance is laborious and molecular tools have revolutionized what is possible for tracking the evolution of resistance, particularly for studies of target site mutations. My talk will focus on efforts that have been made over the last several years to connect the phenotype and genotype of resistance, and how this is changing our understanding of what resistance management.

Bio

Jeffrey G. Scott is an Emeritus Professor in the Department of Entomology at Cornell University, where he has held various faculty and leadership positions since 1986, including serving as Department Chair (2007–2013) and Director of the Sarkaria Institute of Insect Physiology and Toxicology. He earned his Ph.D. in Entomology from the University of California, Riverside, after completing his M.S. and B.S. degrees at Michigan State University. His research expertise spans the evolution and population genetics of insecticide resistance, insecticide toxicology, and the molecular biology of insects, with a particular focus on P450 monooxygenases.



9:25 Vanessa Lopez

Building Community and Connection through a Career in Biological Control

Abstract

The field of entomology and biological control has impacted my life in many ways. As an undergrad and PhD student in the UCR Entomology Department from 2007-2013, I became proficient in entomology and invasive species management using biological control. My dissertation research investigated the life history, dispersal potential, natural enemies, and population genetics of goldspotted oak borer (*Agrilus auroguttatus*) which allowed me to interact with incredible UCR faculty, students, and staff, as well as land managers from government agencies and universities. My time at UCR provided a foundation for making connections and building relationships that opened doors and ultimately shaped the trajectory of my life. During this talk, I will share about the path that took me from UCR student to working on specific, field-based research projects to managing a National Biological Control Program in Washington, DC and overseeing management of four National Forests in North Carolina for the USDA Forest Service.



Bio

Vanessa Lopez is an entomologist who specializes in invasive species management and biological control. She completed her PhD at the University of California, Riverside, in 2013, and her dissertation focused on the development of a biological control program for the invasive goldspotted oak borer (*Agrilus auroguttatus*) in Southern California. In 2014, Vanessa moved to Cincinnati, Ohio, where she was a postdoc at Xavier University working on Asian longhorned beetle (*Anoplophora glabripennis*) and emerald ash borer (*Agrilus planipennis*) biology and management, including studies on the dispersal and trapping of these invasive woodborers. She started her career with the USDA Forest Service in Fort Collins, Colorado in 2016 as the National Invasive Species Program Manager in the Forest Health Assessment and Applied Sciences team within Forest Health Protection in State, Private, and Tribal Forestry. In 2018, she moved to Washington, D.C. to serve as the National Program

Manager for Invasive Plants and Biological Control in Forest Health Protection, Washington Office. In May 2025, Vanessa accepted the position of Deputy Forest Supervisor for the National Forests in North Carolina.

9:50 Lightning Talks

John Heraty, Distinguished Professor

The Quest for the Microterrestrial, an Exploration of Chalcid Wasps

Ben Nyman, Postdoctoral Researcher, Chandrasegaran lab

Lab and Semi-Field Testing of SIT Dynamics in *Aedes aegypti*

Matt Daugherty, Cooperative Extension Specialist

Lessons learned from past insect invasions

Molly Barber, PhD Candidate, Rankin lab

Herbivore-Plant-Pollinator Interactions in Coastal Sage Scrub Mallows

Cole Cramer and Connor Hsu, Future UCR students

Cultivating Curiosity: Inspiring the Next Generation (10 min)

Abstract

After noticing the lack of youth within the Lorquin Entomological Society in Southern California we started our own initiative focused on engaging children through meaningful, community-based experiences. What began as a simple idea among two motivated high school freshmen has grown into one of the leading youth focused entomology programs in Southern California. We design and lead hands-on outreach events for children, encouraging interaction with live insects, exploration of insect biodiversity, and basic collection techniques. Since launching in 2023 as the first youth division of the Lorquin Society, we have organized over fifteen public events, reaching thousands of attendees. Such events include insect discovery tables, guided hikes, and specimen displays. In this presentation, we will share the development of our group, highlight our outreach work to date, and discuss how youth-led efforts can broaden participation in insect science and foster environmental awareness in the next generation.

Bios

Cole Cramer and Connor Hsu are high school juniors with a shared passion for entomology and insect biodiversity. They are the co-founders and co-leaders of the Lorquin Scholars, the youth chapter of the Lorquin Entomological Society, founded in 2023 to encourage young people to study and appreciate insects. Both attended the UC Davis Bio Boot Camp for three summers and have become active youth leaders in entomology through outreach, education, and hands-on field experience.

Through the Lorquin Scholars, Cole and Connor organize hikes, insect surveys, and educational outreach programs that introduce younger students and families throughout Southern California to the important roles insects play in ecosystems. Their work includes teaching insect identification, field collecting techniques, and science communication, while helping foster curiosity and a deeper appreciation for the natural world.

In addition to leading outreach efforts, they conduct independent fieldwork, maintain curated entomology collections, and explore insect diversity through direct experience. They have also attended national professional conferences and represented youth voices at scientific meetings, museum events, and public education programs. Through their work, Cole and Connor hope to inspire the next generation of entomologists.

10:20 Coffee Break

10:40-12:00 Symposium Session 2

10:40 Amelia R. I. Lindsey

Sex-altering symbionts of parasitoid wasps

Abstract

Insects are rich in associations with microbes that alter myriad aspects of their biology. For example, bacteria in the genus *Wolbachia* have evolved numerous strategies to manipulate sex and reproduction, including converting would-be males to females. This so-called “parthenogenesis-induction” phenotype was discovered at UCR more than 30 years ago, and we now know this occurs in a range of insect species, including many parasitoid wasps. However, the underlying mechanisms of this microbe-mediated asexual reproduction have since remained largely elusive. In ongoing work, we are characterizing the insect and *Wolbachia* factors that facilitate the asexual reproduction of female offspring. This transition in reproductive mode has numerous evolutionary consequences for the insect, and our data indicate this is made possible by a novel mechanism of bacteria-host interaction.

Bio

Amelia Lindsey is an Associate Professor at the University of Minnesota. She completed a PhD in Entomology with Richard Stouthamer at the University of California Riverside in 2017 and was a postdoctoral researcher with Irene Newton at Indiana University prior to starting at UMN in 2020. Her research is focused on understanding transitions in insect reproductive biology, and the symbionts that interact with and drive such changes. Her lab uses a range of hymenopteran and dipteran models in combination with genomics and cell biology to address questions about these processes. A major focus in the lab is the *Wolbachia* symbionts that convert *Trichogramma*, *Leptopilina*, and many other parasitoid genera to asexual reproduction, i.e., thelytokous parthenogenesis. She has two dogs, named after the *Drosophila melanogaster* mutants that they phenocopy.



11:05 Kristin Michel

Green Eggs and Ham: Insect genetic engineering and genomics into the new millennium

Abstract

In this talk, I will highlight some of the department's research accomplishments in genetic engineering and genomics around the millennium, and how my graduate training has set me up for my academic career in these areas.



Bio

Kristin Michel is a Professor at Kansas State University specializing in the molecular genetics and immunology of mosquito vectors. She earned her Ph.D. from the University of California Riverside in 2002 followed by postdoctoral training at the European Molecular Biology Laboratory in Germany. Her research investigates host-microbe interactions in *Anopheles gambiae* to understand how the mosquito immune system influences pathogen survival and to develop novel vector control strategies.

11:30 Lightning Talks

Jessica Purcell, Professor

Part 1: Keeping up with the times: challenges and opportunities in graduate education

Part 2: Down the genomic rabbit hole: the genetic basis of complex traits

Falon Butcher, Undergraduate Student, BS + MS program, Weirauch lab

Life Feeling Arid? Consider This Mirid! - Divergence Dating of an Undescribed Lineage of South African Mirinae (Hemiptera: Miridae)

Oscar Martinez Lopez, Postdoctoral researcher, Woodard lab

Bee conservation across time and USpace: gaps and opportunities

Amy Murillo, Associate Professor

Return of the Flesh-eating Parasite: Preparing California for Screwworm

Ashley Bui, PhD Candidate, Heraty Lab

Elucidating the geographic origins of a *Wasmannia* parasitoid, *Orasema minutissima* (Chalcidoidea: Eucharitidae), on Hawai'i

12:00 Lunch

Please pick up your lunch and enjoy our outdoor dining areas on campus.

Options include:

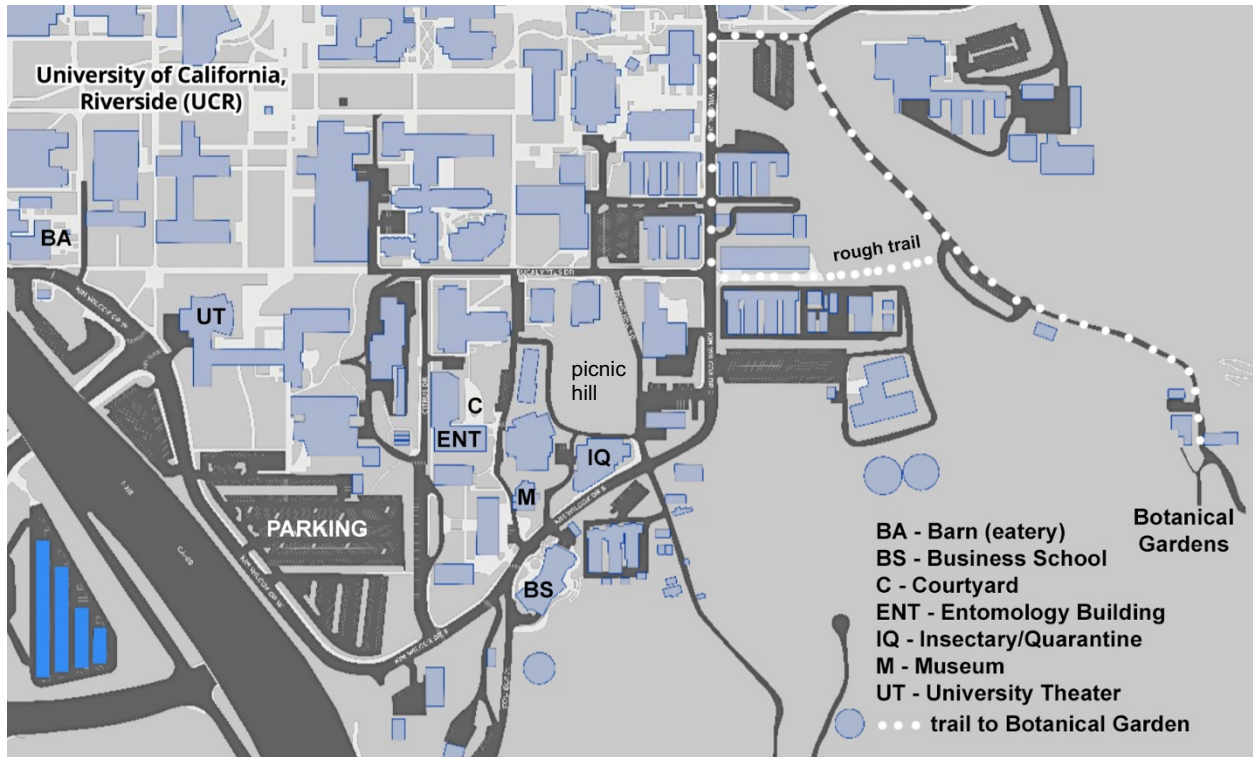
Tables at the Business school (stay here!)

Tables outside of the Entomology Museum (just across the street!)

Tables on Picnic hill (walk between the Museum and I&Q. Turn right and walk behind I&Q

or walk left down road to find trails up to picnic hill)

Tables in the Entomology Courtyard



1:30-2:20 Symposium Session 3

1:30 Jim Woolley and Lynn LeBeck

The Division of Biological Control in the 1980's: a shared perspective with input from faculty and former students

Abstract

The UCR Department of Entomology was the largest in the country during the 1980's. One hundred graduate students were spread across the three Divisions, with close to 40 faculty and many permanent staff research associates. Highlights from the 1980's will be shared from the perspectives of former students and faculty. Key research areas, how they developed over the decade, and memories from personnel in that decade and what made it special, will be presented.

Bio

Jim Woolley obtained an M.S. degree in Entomology in 1976 from Oregon State University. After a short period working as a field entomologist for Stayton Canning Company in Oregon, and operating a cooperative truck farm north of Eugene, he began graduate work in systematics and biological control at UCR in Fall of 1977. While at UCR he worked with his supervisor Gordon Gordh on systematics of Encyrtidae, John Pinto on a survey of insects associated with the jojoba plant, and with Paul DeBach and Mike Rose on classical biocontrol of the bayberry whitefly. His dissertation topic was the systematics and taxonomy of the family



Signiphoridae. He was awarded a Ph.D. from Riverside in 1983 and was hired as an Assistant Professor by the Department of Entomology, Texas A&M University. His research has primarily dealt with the taxonomy and systematics of parasitic Hymenoptera in the superfamily Chalcidoidea, at all taxonomic levels from studies of complexes of cryptic species to phylogenomics and reclassification of the superfamily, as well as the use of chalcidoids in biological control. He is the author of over 80 peer-reviewed publication and co-editor of two books. After 34 years of teaching, research and service at Texas A&M, he retired in 2017, but he remains active in research, service and mentoring students. Recently he co-edited the book "Chalcidoidea of the World" with his former student John Heraty. 55 scientists contributed chapters to this book covering every aspect the superfamily, including chapters on all 53

families, as well as morphology, the fossil record, natural history, speciation and genetics, the role of endosymbionts in their biology, and their use in biological control.



Bio

Lynn LeBeck received a BA in Biology in Milwaukee, WI and an MS in Entomology from the University of Wisconsin in Madison in 1979. Her Masters work focused on entomopathogenic nematodes which heightened her interest in biological control. She selected UC-Riverside for her Ph.D. and Dr. Gordon Gordh for her dissertation work. She studied aspects of the relationship between the oothecal parasitoid, *Comperia merceti* and its host, the brown-banded cockroach. In 1985 she headed to the University of Hawaii to join her husband, former UCR entomology student and future UCR Specialist, Dr. Marshall Johnson. She spent 20 years in Hawaii where she was involved with research, teaching undergraduate entomology courses, and finally agricultural research administration at the college level. She and her husband returned to California in

2002, with Marshall joining the UCR Entomology Department while located at the UC Kearney Ag. Center near Fresno, CA. From 2003 to 2006 she worked with the UC-Berkeley Center for Biological Control, after which she took the position of Executive Director of the Association of Natural Biocontrol Producers (ANBP), a non-profit serving the commercial augmentation biological control industry in North America.

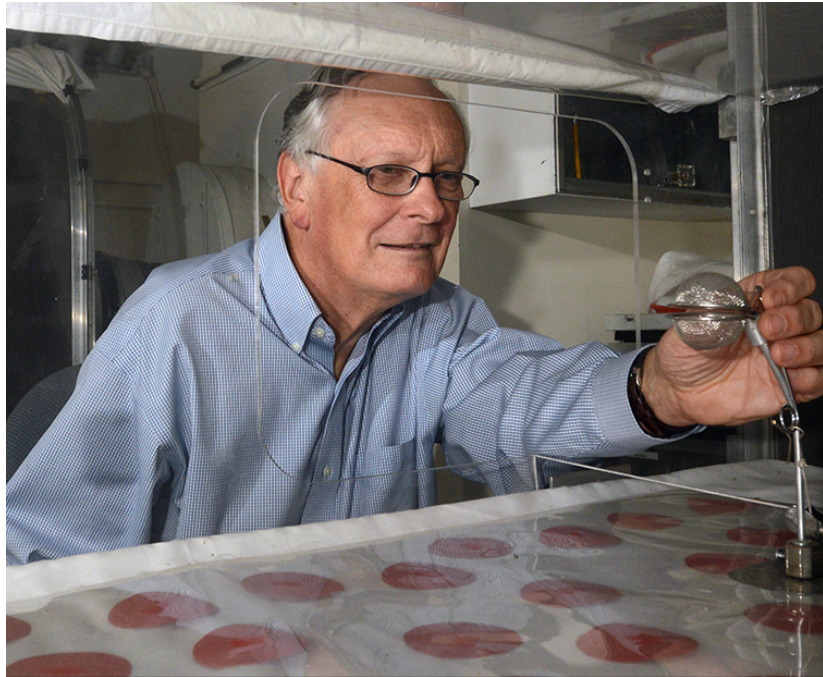
1:55 Ring Cardé

Pheromones and Chemical Ecology at UCR: Sixty Years of Discovery and Application

Abstract

Pheromones govern much of insect behavior, including attraction, aggregation, species recognition, and courtship. Among social insects, chemicals serve as a principal language of communication and social organization. Host finding often is linked to host odors. I will trace UCR's contributions to discovery and practical application by highlighting the work of 3 colleagues. In the 1960s Harry Shorey imitated pheromone studies at UCR and he is recognized as a founder of this field; he was

the first to demonstrate that a synthetic pheromone could disrupt mating and thereby protect a crop. Tom Baker's contributions at UCR were notable for establishing how odors, wind and visual feedback combined to facilitate flight to an odor source. Joceyn Millar anchored the work of colleagues here and worldwide by identification of hundreds of semiochemicals and showing how they modulate response. My work has largely followed similar paths.



Bio

Dr. Ring T. Cardé is an internationally recognized entomologist and former A. M. Boyce Endowed Chair at the University of California, Riverside Department of Entomology. He earned his Ph.D. in entomology from Cornell University in 1971, joined the entomology faculty at Michigan State University in 1975, relocated to the University of Massachusetts Amherst in 1981, and moved to UCR in 1996. Dr. Cardé is widely celebrated for his pioneering research on insect chemical ecology and odor-mediated behaviors, specifically tracking how pheromones influence moth communication and how visual cues and carbon dioxide guide female mosquitoes to human hosts. Throughout his prolific career, he has published hundreds of scientific papers, served as the co-editor of the *Encyclopedia of Insects*, and been elected a fellow of multiple prestigious organizations, including the American Association for the Advancement of Science and the Entomological Society of America.

2:20 Lightning Talks

Ben Van Raalte, PhD Candidate, Mauck lab

Low cost whole genome DNA sequencing allows hastened development of host-plant resistance to insects in crop plants

Karthikeyan Chandrasegaran, Assistant Professor

How mosquitoes choose oviposition sites: Insights from dissolved solids

Tallisker Weiss, PhD student, McFrederick lab

Bumble Bee Foraging Patterns and Implications for Disease Persistence

Morgan Thompson, Assistant Professor

Insect herbivory induces plant defenses that shape ecological communities

Nagham Melhem, PhD Candidate, Yamanaka lab

The Ecdysteroidogenic Tissues in the Yellow Fever Mosquito *Aedes aegypti* Larvae

Erin Rankin, Professor and Vice-Chair

Wasps and why we should love them

Closing remarks

3:00–6:00 Entomology Building Open House

Tours: (Sign up in Entomology Courtyard)

Entomology Museum

Insectary & Quarantine Facility

Entomology open labs:

Cass lab – Chapman Hall 1st floor

Thompson lab – Entomology Building 1st floor

Heraty lab – Entomology Building 1st floor

Weirauch lab – Entomology Building 1st floor

Murillo lab – Entomology Building 2nd floor

Rowen lab – Entomology Building 2nd floor

Baer lab – Entomology Building 2nd floor

Chandrasegaran lab – Entomology Building 2nd floor

Lee lab – Entomology Building 3rd floor

Mauck lab – Entomology Building 3rd floor

Park lab – Entomology Building 3rd floor

Poster presentations

3:30–4:15 Poster Session 1:

Ashley Bui, Heraty lab, Entomology Building 1st floor

Ants, Plants, and Parasitoids: Investigating the natural history of an introduced *Orasema* wasp (Hymenoptera: Eucharitidae) on Hawai'i

Veronica Tyts, Weirauch lab, Entomology Building 1st floor

Tracking back in time: untangling the evolution of the largest subfamily of plant bugs Mirinae (Hemiptera: Miridae)

Jacqueline Holquinn, Murillo lab, Entomology Building 2nd floor

Three's a Crowd: The Burden of Multi-Parasite Infections in Laying Hens

Helen Vo, McFrederick lab, Entomology Building 2nd floor

Exploring the Synergistic Effects of Cadmium and *Crithidia bombi* on *Bombus impatiens*

Maddy Lee, Lee lab, Entomology Building 3rd floor

Mating behavior and mate preference of susceptible and insecticide-resistant German cockroach (*Blattella germanica*)

Emily Ta, Lee lab, Entomology Building 3rd floor

Gustatory Associative Learning Behavior of German Cockroaches (Blattodea: Ectobiidae)

William Samson, Mauck lab, Entomology Building 3rd floor

Evaluating Black Soldier Fly frass as a soil amendment for melon

Blanca Peto, Woodard lab, Entomology Building 3rd floor

Regional variation in *Bombus vosnesenskii* worker body size across California's diverse landscapes

Teddy Adams, Hoddle lab, Chapman Hall

Do Generalist Predators Feed On Cotton Seed Bug (*Oxyacarenus hyalinipennis*).

Marlene Hernandez, Cass lab, Chapman Hall

Biological Control of *Oligonychus pratensis* in Organic Date Orchards

Jenni Garcia Quiceno, Cass lab, Chapman Hall

Mapping green lacewing species for the enhancement of biological control in California.

4:15–5:00 Poster Session 2:

Molly Barber, Rankin lab, Entomology Building 1st floor

Herbivory Effects on *Malacothamnus* spp. in Coastal Sage Scrub Ecosystems

Mellisa Musekwa, Rowen lab, Entomology Building 2nd floor

Impact of Fertilizer Treatments on Corn Resistance and Herbivore Performance

Rattanan Chungswat, Lee lab, Entomology Building 3rd floor

Accessibility to water influences the performance of inorganic dust against German cockroaches (Blattodea: Ectobiidae).

Ben van Raalte, Mauck lab, Entomology Building 3rd floor

A low cost egg staining method for improved phenotyping of whitefly resistance in crop plants.

Meghan Moore, Woodard lab, Male incubation in bumble bees and its effects on early nest development.

Sam Garcia, Cass lab, Chapman Hall

Lisett Espino, Cass lab, Chapman Hall

Cottony Cushion Scale preference for citrus trees.

Mel Thayer, Wilson lab, Chapman Hall

Development of a selective lure for the black fig fly (Diptera: Lonchaeidae: *Silba adipata*)

Daiki Fujinaga, Yamanaka lab, Entomology Courtyard

A modular transgenic platform for CRISPR and Gal4-UAS applications in the yellow fever mosquito

Insect photo exhibit – Entomology Building 1st floor Large Conference Room

Silent Auction – Entomology Courtyard

In support of GROWTH initiative

6:00 Dinner, UCR Botanic Gardens

Shuttles are available for transportation from the Entomology Building to the Botanic Gardens

or path for walking to UCR Botanic Gardens highlighted on map.

